ATTACHMENT L

MDEQ APPROVAL LETTER DATED JULY 12, 2006

GEOMORPH® SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT PLAN UPPER TITTABAWASSEE RIVER MIDLAND, MICHIGAN,

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

July 12, 2006

Mr. Ben Baker
Senior Environmental Project Leader
Michigan Operations
The Dow Chemical Company
1790 Building
Washington Street
Midland, Michigan 48674

Dear Mr. Baker:

SUBJECT: *GeoMorph*™ Sampling and Analysis Plan, Upper Tittabawassee River (SAP) and Quality Assurance Project Plan, *GeoMorph*™ Investigation Tittabawassee River (QAPP), Midland, Michigan; The Dow Chemical Company, Michigan Operations (Dow); MID 000 724 724

The Michigan Department of Environmental Quality (MDEQ), Waste and Hazardous Materials Division (WHMD), has completed technical reviews of the *GeoMorph*™ SAP and QAPP prepared by Ann Arbor Technical Services, Inc. (ATS), and submitted by Dow/ATS on June 1, 2006, and subsequently revised on June 30, 2006, and July 7, 2006. The SAP and QAPP have been submitted by Dow in partial response to the MDEQ and U.S. Environmental Protection Agency's (U.S. EPA) March 2, 2006, and April 13, 2006, notice of deficiency comments on Dow's December 28, 2006, Remedial Investigation Work Plan for the Tittabawassee River.

As part of these SAP and QAPP technical reviews, MDEQ and U.S. EPA staff met with representatives of ATS and Dow in a number of all-day working sessions.

The MDEQ hereby approves the SAP and the associated QAPP as a pilot methodology to characterize sediments and floodplain soils in the upper Tittabawassee River (*GeoMorph*™ reaches A-O), subject to the exclusions and limitations identified below. This approval does not extend beyond the pilot phase of this investigation. As discussed during the working sessions, the MDEQ retains its opportunity to comment on, amend, or modify Dow's *GeoMorph*™ proposal, as necessary, during and after the pilot study implementation period. For example, the MDEQ and Dow have not yet reached agreement on the Potential Constituents of Interest (PCOI) component of the SAP and additional modifications may be necessary to address this issue.

- The *GeoMorph*™ SAP and this approval are only applicable to the investigation and characterization of sediments and floodplain soils of the upper six miles of the Tittabawassee River study area. The full Remedial Investigation Work Plan, which is currently under revision by Dow and is due to be resubmitted to the MDEQ on

December 1, 2006, will need to comprehensively address all remedial investigation requirements as identified in Part XI of Dow's 2003 Hazardous Waste Management Facility Operating License (License).

- As discussed with Dow/ATS, the MDEQ is specifically not approving the "surface weighted average concentration (SWAC)" approach described in the SAP. The MDEQ is willing to consider this approach once the technical basis and limitations of the SWAC approach have been described in detail.

- The SAP does not contain a sufficiently detailed description of the manufacturing processes or the duration of the processes that Dow believes resulted in the elevated levels of dioxins and furans in the Tittabawassee River floodplain soils and sediments. Based on the results of the *GeoMorph*™ working meetings, the MDEQ understands that Dow/ATS is currently researching this issue and that additional information will be developed during the implementation of the SAP. The MDEQ further understands that the results of this additional work will be provided in the Upper Tittabawassee River *GeoMorph*™ Site Characterization Report (Report) which is scheduled to be completed on February 1, 2007. The "Geochemistry Study" components of the SAP, in particular, are expected to provide information that will be valuable in gaining an understanding of nature, fate, transport, and deposition of the dioxins and furans that were released from historical Dow processes. The Report must contain a reconciliation of the findings of the SAP effort with the release history and manufacturing processes that resulted in presence of the elevated levels of these contaminants in the environment.

- As discussed with Mr. Peter Simon on June 7, 2006, during the week of July 10, 2006, Dow must provide splits of the samples that are proposed for use in the pilot "Geochemistry Study" to Mr. Allan Taylor, Hazardous Waste Section, WHMD, for analysis.

- The June 1, 2006, revision to the SAP contained a Section 6 entitled "Bioavailability Sampling." The June 30, 2006, revision to the SAP did not contain a "Bioavailability Sampling" section. The removal of this section of the SAP was not previously discussed with the MDEQ or agreed to in the *GeoMorph*™ working meetings. In a subsequent note received from you on July 7, 2006, it was indicated that the bioavailability sampling would be conducted over a period of up to three years – as the *GeoMorph*™ investigation is rolled out to the rest of the Tittabawassee River watershed. The MDEQ has reviewed this proposal and has determined that this would unacceptably delay the implementation of the overall remedial investigation process. However, in order to move forward with the balance of the proposed investigation activities and not delay the implementation of mutually agreed upon field activities, the MDEQ will further address the bioavailability issue in the response to Dow's May 1, 2006, submittal.

- The SAP contains a process to develop lists of PCOIs. During the *GeoMorph*™ working meeting on June 22, 2006, Dow/ATS and the MDEQ agreed upon a general process for the development and refinement of the list and a sampling strategy for the application of the list. The notes from this meeting capture a more detailed general process that the MDEQ and Dow have agreed to use for PCOI list development in collaborative meetings on this issue.

If this pilot is successful, it is expected that the *GeoMorph*™ site characterization methodology will be expanded to characterize the remaining downstream sediments and floodplain soils on the Tittabawassee River. The MDEQ wishes to express its appreciation to U.S. EPA staff for their assistance and to ATS and Dow staff who participated in the working meetings for their efforts to develop the pilot SAP and related documents on a very tight timeline.

Should you have questions regarding this approval, please contact Mr. Taylor, at 517-335-4799 or by e-mail at taylorab@michigan.gov; or you may contact me.

Sincerely,

George W. Bruchmann, Chief
Waste and Hazardous Materials Division
517-373-9523

cc: Mr. Peter Simon, ATS
Mr. Philip Simon, ATS
Mr. Joseph Heimbuch, de maximis, inc.
Mr. Gerald Phillips, U.S. EPA, Region 5
Mr. Greg Rudloff, U.S. EPA, Region 5
Mr. John Steketee, U.S. EPA, Region 5
Mr. Allen Debus, U.S. EPA, Region 5
Dr. Lisa Williams, U.S. Fish and Wildlife Service
Mr. Jim Sygo, Deputy Director, MDEQ
Mr. Andrew W. Hogarth, MDEQ
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Mr. Allan Taylor, MDEQ
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